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ABSTRACT

This publication has been prepared by the Curriculum Development Center (The University of the State of New York) in response to many requests from teachers for help in implementing the new social studies. Suggestions are given for the teaching materials which are available for use in such teaching. The nature of the relationship between man and his physical environment will be explored. The delicate balance between man's effect on his land and the land's effect on human culture reveals itself as the children explore life in several geographic communities. Locating and organizing information, interpreting pictures, charts, and maps; observing, applying problem-solving techniques and critical thinking to his own life; and working with others, are the skills in which the third grader will need instruction and the means by which he will discover man's interaction with the land. The units are on Taiga Communities, Geography, and Desert Communities. Each unit includes a problem statement, understandings to be developed, information needed, learning activities, evaluation, and teaching materials (multimedia). (Author/SLD)

SOCIAL STUDIES

GRADE 3

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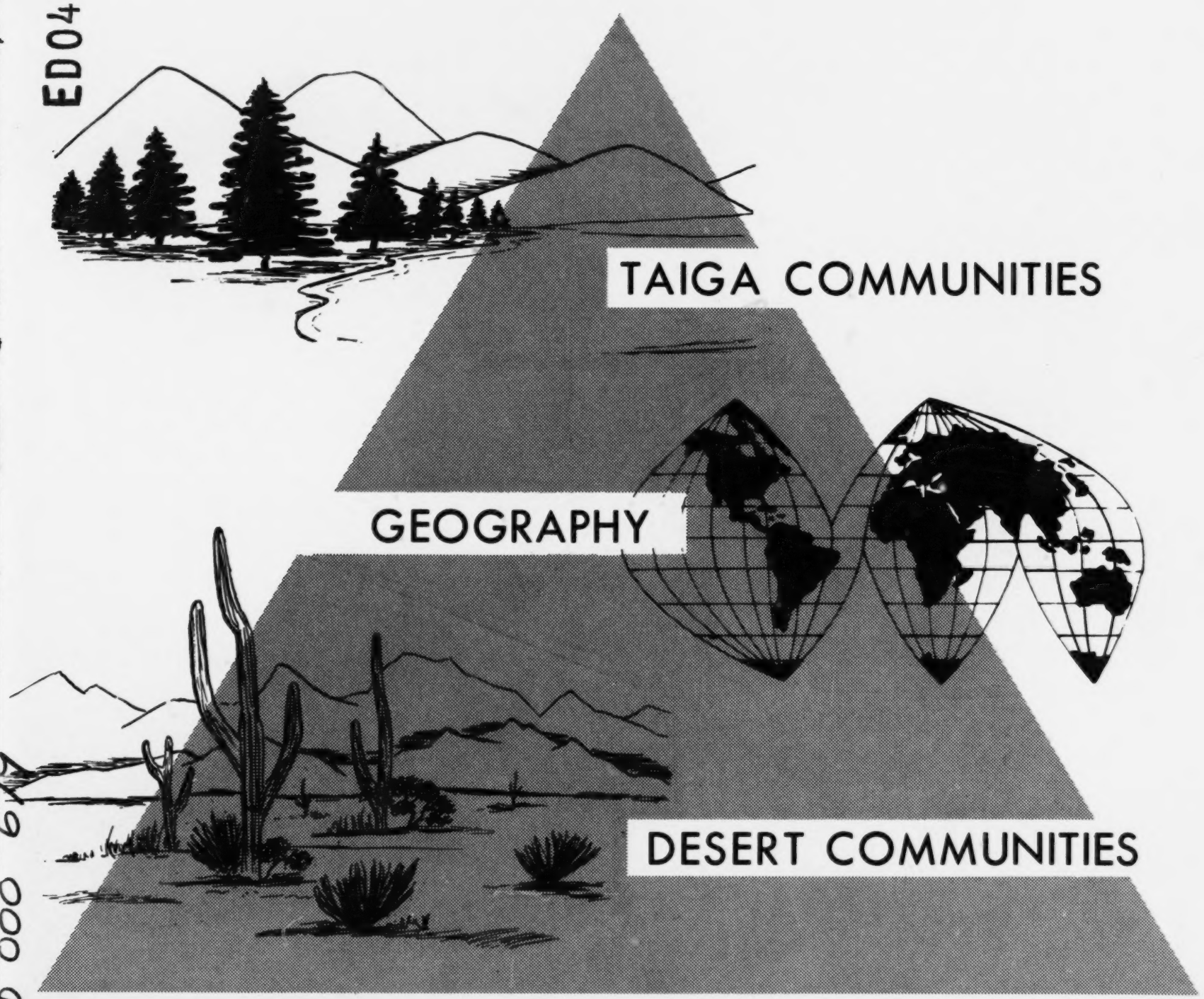
TEACHING SYSTEMS I



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Foreword

This publication has been prepared by the Curriculum Development Center in response to many requests from teachers for help in implementing the new social studies. In the pages which follow, suggestions are given for the teaching of three units of the third grade program, followed by extensive listings of the materials which are available for use in such teaching.

This material was prepared by a team consisting of Concetta Morgan, third grade teacher in the East Islip Schools, Lynne Noel, third grade teacher in the Owego-Apalachin Schools, Joan Byam, librarian in the North Colonie Schools, and Marjorie Markell, librarian in the East Greenbush Schools. The publication was prepared for press by Howard Yates of the Elementary Curriculum Bureau.

Robert H. Johnstone, Chief
Bureau of Elementary Curriculum
Development

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Curriculum Development Center

Introduction & Overview - Third Grade Community Studies

The nature of the relationship between man and his physical environment will be explored this year. The delicate balance between man's effect on his land and the land's effect on human culture reveals itself as the children explore life in several geographic communities.

Mastery of the skills of the Social Studies as the tools for learning and action and the development of understandings are the desired outcomes, with a foundation of pertinent facts serving only to support broad generalizations or concepts of curriculum content. Understandings as inclusive as those needed to develop the Social Studies skills will demand an encompassing variety of materials and media. No single source or method will result in the learning or practicing of these skills. Locating and organizing information, interpreting pictures, charts, and maps; observing, applying problem-solving techniques and critical thinking to his own life; and working with others, are the skills in which the third grader will need instruction and the means by which he will discover man's interaction with the land.

These teaching systems, organized according to regional community study, may serve as a guide for teachers in selecting appropriate activities and media with respect to the abilities and needs of their groups. Cognizant always that the understandings supersede in importance any mastery of factual information, the teacher should initiate various types of activities which draw upon more than one type of skill. Necessarily these teaching systems provide for limitless extension; those activities included are merely starting points for teacher and class creativity.

Concurrent with the basic aims of skill development, evaluation must be a continuing process involving a wide variety of approaches, often based on observation. The child's competency in applying his skills in gaining knowledge of a region must result in his ability to feel, empathize, to look and then to see, to probe, to question, and finally to assimilate understandings and attitudes in to his patterns of behavior.

Exposure to ways of living in various regions of the world will complement the child's own pride in, and expanded appreciation for, his own heritage as an American. He will view the world with avid curiosity, yet possess the skills with which he may meet it confidently--with self-discipline, self-dependence and self-direction.

Grade III

GEOGRAPHY

Stating the Problem

- Why are climate and latitude important to the study of communities around the world?

Understandings To Be Developed

LATITUDE

1. The globe is marked with horizontal lines which represent degrees of latitude.

   . The surface of the globe is circled at the center by a line called the Equator.

   . All the lines parallel to, and north of the Equator represent degrees of north latitude.

   . All the lines parallel to, and south of the Equator represent degrees of south latitude.

CLIMATE

1. Climate refers to the general conditions of weather that any place may expect year after year.

   . Some places in the world are warm all year round. They are said to have a warm climate.

   . Some places in the world are cold all year round. They are said to have a cold climate.

   . Most places in the world have a seasonal climate, sometimes warm (as in summer), and sometimes cold (as in winter).

2. There is a relationship between climate and latitude.

   . The Tropic of Cancer is north of the Equator and the Tropic of Capricorn is south of the Equator.

   . All parts of the earth between these two lines are in the low latitudes where the climate is generally warm all the year.

   . Those parts of the world north of the Arctic Circle or south of the

Antarctic Circle generally have a cold climate the year round. They are the areas of high latitude.

. The rest of the world is in the middle latitudes which have a seasonal climate with winter, spring, summer, and fall.

Information Needed (To Develop Understandings)

1. What is climate?
2. What is latitude?
3. What is weather?
4. How are these terms related?
5. How can we use maps and globes in the classroom?
6. How are climatic regions shown on maps and globes?
7. What are the characteristics of climatic zones?
8. Why do we use latitude to locate places?

Learning Activities

I. Preliminary Questioning - to determine level of Social Studies skills and review major geographical concepts.

   A. What information can we get from a globe?

   B. How is a map different from a globe?

   C. What do we mean by: Equator, cardinal directions, continent, country, hemisphere, ocean, lake, river.

II. Activities to teach map and globe skills, involving latitude.

   1. Gather as many maps and globes as possible for pupil manipulation throughout this unit. Examine globes and maps freely and list items discovered.

   2. Take class outdoors to discuss directions (i.e. - North is straight ahead - where is East?) Have class indicate things they see and become familiar with landscape (bodies of water, highways, landforms, buildings). Refer frequently to these terms which will be used on simple maps.

   3. On a sand table or outdoor sandpile encourage children to show

such features as mountains, steep paths over them, little streams flowing into big streams.

4. Have children make pencil or crayon drawings of natural features on large sheets of wrapping paper.

5. Have children collect pictures and arrange a bulletin board showing natural features of land - mountains, forests, lakes, etc.

6. Working from a chalkboard outline map, such as A. J. Nystrom's World Map (No. RB c98) or Nystrom's Graphic Project globe, fill in and review names of continents, oceans, own state, etc. Have children note lines parallel to equator and learn term "latitude." Learn meaning of "north latitude," "south latitude."

7. Have children take an imaginary trip from point A on the globe to point B and identify climatic zones traversed along the way.

8. Use *News Trails* and *My Weekly Reader* news magazines when appropriate issues on map skills appear.

9. Have children discover need for and meaning of color as an aid to map study (ex: Why is most of globe blue?)

10. Make globes from balloons covered with papier maché. Have children trace outlines of land masses from maps and superimpose on painted globe. Use bright yarn for Equator and zone boundaries.

11. Have available for free time some wooden puzzle maps. Children can use them to become more familiar with location of continents, etc.

12. Use opaque projector and have children observe transfer of image from a small map in a book to enlarged image. What is the northernmost state in the U. S.? How can you tell?

13. Cut a rubber ball in sections as you would section an orange. Press it on a flat surface to show children how round objects are distorted when flattened.

14. Play "Globe Trotter's Game" - children take turns selecting from the globe the "Mystery Spot of the Day" and inserting its name on a chart. When other children find this spot on the globe, they may sign their initials on the list of "Globe Trotters."

15. View Jam Handy filmstrip series "What is a Map?" Series No. 1260 - $5.75. Introduction to Maps.

16. Use film "What Is a Map?" (Vocational Guidance Film - 10min - $2.25.)

17. Post a Denoyer-Geppert Simplified Series Geographical Terms map or similar map in the classroom for easy reference and review.

III. Research activities (maps, globes, and latitude)

1. Learn to use gazateer and atlas.

2. Review using dictionary and define: latitude, climate, weather.

3. Begin keeping individual dictionary of Social Studies terms. It will be referred to frequently.

4. Use the *Golden Geography* (Golden Press) 1961 - p. 7-22 and make committee reports on findings.

5. Read and discuss such books as: *What is the Earth?* Benefic Press.

IV. Activities to teach climate and weather

1. Keep a month's weather chart during September, January, and May. Save for comparison and reference when reviewing seasonal changes. Record temperature, cloud conditions, precipitation, and type of clothing worn each day.

2. Discuss: How can we *generally* describe our weather in December and January? How is this different from our weather in April or May? Compare these findings with dictionary definitions of weather and climate.

3. Have children record which vegetables and fruits are available in September, January, and May. Note price changes in these items. Why do we pay more for strawberries in April than in June?

4. Observe and note seasonal changes in children's surroundings and homes (i.e.: heat, storm windows, screens, use of nearby land for growing, use of ponds for swimming, ice skating).

5. Make a bar graph showing temperature changes during a winter month. Save for reference in the spring.

6. Use such maps as Rand-McNally - Climates of the Earth Map WG906C.

7. Use instructional tapes such as, "Let's Find Out About Weather" (SG46) or "What is Weather?" (SG52) from Imperial Productions, Inc.

V. Research activities to teach climate and weather

1. Use such books as: Benefic Press - *What is Weather?* to teach concepts of day, night, and seasons.

2. Read Benefic Press - *What is a Season?* or other books on seasons.

3. Use filmstrip Jam Handy Series "Introduction to the Globe" No. 1250 especially "Night and Day," "Hot and Cold Places," $5.75 ea.

4. View films such as "Our Big Round World" - (11 min.) CORF.

VI. Other activities

1. Collect daily weather map from local newspaper, view with opaque projector, and discuss.

2. *Visit an airport weather station and gain instruction in read*ing a weather map.

3. Survey parents of children to find any employed in occupations related to weather.

4. Call local radio or TV studio for weather information.

5. Let children take turns being "Weatherman of the Day" reporting in class or over PA system.

6. Let children use filmstrip previewers either individually or in small groups and report to class on one of the topics under study.

7. Have children place a threaded needle at point A on the globe and measure the distance to point B. From our country, what other points are the same distance as point A is from point B?

Evaluation - This should be an ongoing activity planned for and spaced throughout the unit.

I. Suggested form for pupil self-evaluation - of completed projects, participation, and reports.

How I Work and How I Learn

	I Do This Well	I Am Improving	I Need To Do Better
___ I know how to find places on maps and globes			
___ I know what and where the earth's climatic zones are			
___ I know directions on maps and globes			
___ My models look like the classroom globes and maps			
___ I take part in class discussions			
___ I find and bring in materials to help the class			

II. Teacher evaluation of pupil's participation and progress in unit.

A. Subjective Techniques through observation and record keeping.

- Did this child show interest in his work and in the class work?
- How well and how often did he contribute to discussion?
- Can he use globes, maps, atlases and other reference materials satisfactorily?

B. Discussion Questions for review

- What is the difference between weather and climate?
- What does a region's latitude have to do with its climate?
- What information can we get from a globe? A map?

C. Other evaluative techniques

- Creation of multiple choice, short answer, matching tests and outline map work (emphasize skill involvement rather than content detail)
- Individualized progress interview (teacher-pupil)
- How well does the class work together in solving problems?
- How can we use this unit as a transition to our new unit?

III. Cooperative Education (class and teacher)

A. Class and teacher assessing overall success.

- What have we learned about the relationship of climate and latitude in regions of the world?
- What methods worked well?
- What materials and sources did we find helpful?
- Which children were leaders in our unit and why?
- What areas or aspects of our work need improvement?
- What kinds of activities did we enjoy most? Least? Why?

Teachers' References

Books

Carter, G.F. Man and the land. Holt, Rinehart & Winston. 1964. $9.95.
Shows the close relationship that exists between man, land and culture. Presents concepts and explanations directly related to third grade curriculum.

Harris, R.M. Rand McNally handbook of map and globe usage. Rand McNally. 1960. p. 54.
Guide for teaching maps and globes. Outlines what to do and how to do it on each grade level.

Hone, E.B., & others. Teaching elementary science: a source book for elementary science. Harcourt. 1962.
A valuable aid in developing science-related activities in areas of climate, weather, etc. Bibliography. Reference tables.

Jackson, Agnes, & others. People of the world. Walck. 3 vols. 1958-64. $6.75. 4-7.
Short accounts of people living in many different climates and lands.

Contents:
Vol. 1: A visit to Zululand; The Sherpas of Nepal; The Maoris of New Zealand; An Indian Village in the Deccan.

Vol. 2: Lumbering in Canada; Cattle Raising in Australia; Tea Growing in Ceylon; Fur Hunting and Fur Farming in Canada.

Vol. 3: Peoples of the African Desert; A Rubber Plantation in Malaya; The Keralans of Southern India; A Banana Plantation in Guatemala.

United Nations Educational, Scientific and Cultural Organizations. Source book for geography teaching. UNESCO. 1965. $4.28.
Practical advice on teaching geography. Includes teaching by observation, teaching materials, the geography classroom, and the organization of geography teaching.

Periodicals and Pamphlets

Journal of Geography. A.J. Nystrom & Co. $5 monthly S-My.
The official journal of the National Council for Geographic Education, this journal is designed for teacher use. Emphasizes methods of teaching geography. Includes articles pertaining to the use of geographic materials.

The National Geographic Magazine. National Geographic Society. $8 yr.
Useful reference for locating information about scientific expeditions, animal life, people of the world, and people of times past.

Successful teaching with globes. Denoyer-Geppert. Teachers manual for use with Denoyer-Geppert globes.

Teaching and learning geography with globes and maps. A.J. Nystrom & Co.

Atlases

Goode, J.P. Goode's world atlas. 12th ed. Rand McNally. 1964. $6.75.
World atlas with relief maps, population estimates. Includes special maps of various sorts. General references atlas.

Hammond (CS) and Co. Inc. Illustrated atlas for young America. Hammond. 1964. $4.75.
Gives basic information on maps. Defines them, tells how to read them, gives the meaning of scale, etc. Includes simple uncluttered maps of each continent. Includes some historical maps of the world and the United States.

____The first book atlas. Watts. 1960. $1.98. (The First books)
Gives products, land-use and political maps. Includes closeups of major cities of the world. One-third of book deals with United States. Includes national parks and tables of data.

Hammond's advanced reference atlas. Hammond. 1964. $5.
A complete social studies atlas in four parts, showing geographical settings of the modern, medieval, and ancient world. Includes maps of climate, natural resources, products, etc. Extensive historical tables. Mostly for teacher use.

Rand McNally & Co. Rand McNally book of nations. Rand McNally. 1960. $3.95. 4-7.
Covers each continent in detail. Includes relief maps and information about the people, animals, geography, products, world rank, and principal religions.

Maps and Globes

Chalkboard outline map. A.J. Nystrom. World Map # RBC 98. $17.75.

Geographical terms chart. Denoyer-Geppert. $18.75.

Graphic-project globe. A.J. Nystrom & Co. 16" $36.50. 22" $56.50.
Large markable surface globes designed for demonstrating by teacher and pupil activities. Includes project kit with each globe.

Materials for Children

Books

Adler, Irving. Oceans. Day. 1962. $2.39. (The Reason why series) 3-5.
Introduction to oceans.

Bixby, William. Skywatchers. McKay. 1962. $3.44. 7-9.
Describes the operation of the Weather Bureau. Includes mention of instances when weather affected the course of history. For very able student or teacher use.

Blough, G. O. Wait for the sunshine. McGraw. 1954. $2.25. 2-4.
Describes the sun's part in making things grow. The story of seasons and growing things.

Branley, F. M. Flash, crash, rumble and roll. Crowell. 1964. $2.65. 2-4.
(Let's read and find out science books)
Explains causes of thunderstorms.

____Snow is falling. Crowell. 1963. $2.50. (Let's read and find out books) 1-3.
Explains what makes snow and how it affects plants and animals. Introduces the topics of weather and seasons.

Darby, Gene. What is a season? Benefic. $1.80. 1-3.

____What is the earth? Benefic. $1.80. 2-4.

____What is weather. Benefic. $1.80. 3-6.

Epstein, Sam. The first book of maps and globes. Watts. 1959. $1.98.
(The First books) 3-5.
An introduction to using highway maps, diagrams, coastal charts and contour maps. Has explanation of terms and symbols. Explains how to use a globe.

Esbensen, Barbara. Swing around the sun. Lerner. 1965. $3.79. 3-5.
Short and simple poems set in full-page illustrations interpret the seasons.

Estep, Irene. Good times with maps. Melmont. 1962. $1.88. (Look, read, learn) 3-5.
A handy guide for using and making maps.

Goetz, Delia. Mountains. Morrow. 1962. $2.98. 2-5.
Locates world's important mountains and explains how they have affected man's way of life.

Jervis, Derek. The seasons. Day. 1962. (Finding out about science) 2-3.
Tells about the four seasons. Has experiments to try and things to look for.

Leaf, Munro. Geography can be fun. Lippincott. 1951. $2.25. 2-5.
Clear presentation of the relationship of the sun and moon to the earth. Describes what different parts of the earth are like and why and how people live where they do.

Lehr, P. E. Weather. Golden Press. 1963. $2.99. (A Golden nature guide)
Presents basic information about the weather. Includes forecasting, meteorological instruments, weather maps, and average weather conditions in the United States. For able student or teacher.

Ravielli, Anthony. The world is round. Viking. 1963. $3.50. 2-5.
Explains why the earth seem flat but shows the evidence man has that it is really round. Beautifully illustrated.

Schneider, Herman. Everyday weather and how it works. McGraw-Hill. 1961. $3.01. 5-8.
Shows how to build and use homemade weather instruments. Explains use of radar, weather satellites and other weather detection devices.

Shapp, Martha. Let's find out about fall. Watts. 1963. $1.88. (The Let's find out books) 1-3.

____Let's find out about spring. Watts. 1963. $1.88.

____Let's find out about summer. Watts. 1963. $1.88.

____Let's find out about winter. Watts. 1963. $1.88.

Tannehill, I. R. All about the weather. Random. 1953. $2.37. (All about books) 4-7.
A Chief of the United States Weather Bureau tells the story of the weather, its causes, its effect on man. Describes how man defends himself against it.

Werner, Jane. Golden geography. Simon and Schuster. 1961. $3.95. (Giant golden book) 4-6.
Easy, clear introduction to geography. Shows human life in all kinds of regions, relating the geography of the area to the kind of life the people live.

Wyler, Rose. The first book of weather. Watts. 1956. $1.98. 3-5.
Includes directions for making weather maps and doing weather forecasting. Gives some simple weather experiments.

Films

Big world. Encyclopaedia Britannica Films. 11 min. Purchase: color $120; Rental: $5.
Introduces the concept of size and shape of the world by use of a large ball. Features a globe showing land and water masses on the earth.

Globes: an introduction. Indiana University Audiovisual Center. 10 min. Purchase: b&w $60, color $110; Rental: b&w $2.15, color $3.65. (Maps and globes series)
Using animated sequences, shows how the globe can represent the physical and cultural features on the earth's surface. Identifies the poles, the equator and scales of latitude.

Homes around the world. Coronet. 11 min. Purchase: b&w $60, color $120.
Presents different type regions of the world and shows that homes are made to suit the climate. In hot, dry places homes are often made of adobe brick, in hot,wet lands homes may be made of leaves and branches of trees.

Latitude and longitude. United World Films,Inc. 9 min. Purchase: b&w $60, color $120.
Explains how latitude and longitude are measured.

Let's make a map. Film Associates. 11 min. Purchase: b&w $60, color $120; Rental: $5.
Shows how a map can show us where places are so that we can find our way from one place to another. Helps child learn how the physical world is represented on a map.
Buildings on a street are related to cardboard models of the buildings. The models are related to blocks of wood which are, in turn, compared to pieces of cloth on a flat surface. Reduces the physical world, step by step, to the abstraction of lines on a flat map.

Maps: an introduction. Indiana University Audiovisual Center. 12 min. Purchase: b&w $60, color $110; Rental: b&w $2.15, color $3.65.
Introduces the student to maps as a representation of the environment by symbols. Using a classroom setting, the film shows how a model of the community is constructed, photographed, and mapped.

Maps are fun. (Second edition) Coronet. Purchase: b&w $60, color $120.
A cartographer helps a boy prepare a map of his paper route. Defines terms such as legend, scale, and grid. Discusses use of color, illustrates different types of maps.

The seasons. United World Films, Inc. 11 min. Purchase: b&w $60.
Animated diagrams show the earth moving in its orbit. Shows changes in position toward the sun in March, June, September, and December. Shows why temperature changes vary from season to season in the temperate zone.

The seasons of the year. Coronet. 11 min. Purchase: b&w $60, color $120.
This film presents a year of experience to help children understand the concept of four seasons.

Understanding a map. McGraw-Hill. 11 min. Purchase: b&w $60.
Explains the relationship of a simple map to the land area that is represented by means of models and animation.

Weather for beginners. Coronet. 11 min. Purchase: b&w $60, color $120.
Explains weather changes, what causes wind, how clouds form, why it rains.

What is a map? McGraw-Hill. 11 min. Purchase: b&w $60.
Introduces the concept of a map by explaining first the plan of a living room and then the map of a neighborhood.

Filmstrips

Fundamental elements of weather. Eye Gate. Color. $5 ea. Set of 10, $43.
Presents weather phenomena and its importance to the pursuits of man.

- Weather and life
- The weather powerhouse
- Adventures of a raindrop
- Our ocean of air
- Whirling winds
- Thunder and lightning
- Weatherman at work
- Changing the weather
- Weather folklore
- The world of clouds

Fundamentals of science. Eye Gate. Color. Set III. $5 ea.

- 119 A - A visit to a weather station
- 119 B - Weather maps and weather forecasting
- 119 C - All kinds of weather

How to use maps and globes. McGraw-Hill. 36fr. Color. $6.50 ea. Set of six, $35.

- Maps: What they are
- Maps: Symbols and terms
- Globes: Our most accurate maps
- Maps: Their types and uses
- Latitude and longitude - finding places and directions
- Latitude and longitude - time zones and climate

Introduction to maps. Jam Handy. 29fr. Color. $5.75 ea. Set of five, $26.25.

Shows children how to translate symbols on simple maps into physical features on the landscape.

What is a map?
Coast lines and their symbols
Landforms and their symbols
Lakes, rivers and their symbols
Towns, cities and their symbols

Introduction to our earth and sun. Society for Visual Education. 59fr. Color. Set of three, $19.75. w/record 33 1/3rpm 12 in.

Students learn that the earth is made of oceans, rivers, lakes, ponds, swamps, mountains, plains, and air. Shows that air is everywhere and tells how it effects living things. Explains night and day as earth turns on its axis and reason for seasons.

Our earth: land, water, air
Earth's blanket of air
How earth's movements affect us

Introduction to the globe. Jam Handy. 23fr. Color. $5.75 ea. Set of five, $26.25.

Continents and oceans
Up and down
North, South, East, West
Night and day
Hot and cold places

Looking at the earth we live on series. McGraw-Hill. 40fr. Color. $16.50 ea. Set of six, $35.

Designed to increase the student's understanding of the earth's physical features. Shows land and water forms, weather, climate, and how they are related to ways of living in parts of this country.

Oceans and coasts
Lakes and rivers
High and low lands
Our land and its waters
Weather and seasons
Climate and plants

Maps and how to use them. Eye Gate. Color. $5 ea. Set of 10, $43.

Designed to develop map and globe skills, this set proceeds from the simplest of flat maps to the use of globes.

What a map is
Elements of a map
Maps of physical features
Maps for special purposes
Maps through the ages
The globe
Using the globe
Flat maps of a round globe
Maps for the air age

New basic weather series. Society for Visual Education. Color. Set of four, $19.80.

Why does the wind blow?
Why does the weather change?
Why the seasons?
Why does it rain, snow, hail, and sleet?

Seasons adventures. Society for Visual Education. Color. Set of four, $18.

Pictures the way living things change from one season to the next. Shows typical children's activities in each season in town and in the country.

Fall adventures 38fr.
Spring adventures 36fr.
Summer adventures 38fr.
Winter adventures 37fr.

Seasons. Society for Visual Education. 37fr. Color. $4.75.

Explains why parts of earth have changing seasons and shows how living things adapt to changes.

Seasons, weather and climate. Jam Handy. 39fr. Color. $5.95. Set of five, $29.

Presents basic concepts of weather. Season and climate are explained.
Our earth in motion
The sun and our seasons
What is weather?
What makes the weather?

Through the seasons series. McGraw-Hill. 45fr. Color. $6.75 ea. Set of four, $24.50.

Designed to help children become more aware of seasonal changes in everyday life.
In the autumn
In the winter
In the spring
In the summer

Transparencies

The earth. Unit I. Teaching Overhead Transparencies. Audiovisual Division. Popular Science Publishing Co., Inc. $19.

Deals with earth's revolution and rotation.
Earth's orbit
Moon's orbit
Day and night
The seasons

Map and globe understandings. Benefic Press. Eight transparencies - each with two hinged overlays. Complete $32.

Teaching suggestions are offered in three difficulty levels for the slow, average, and advanced child.

Globe facts	$4
Grid lines	$4
Latitude and longitude	$4
Understanding seasons	$4
Understanding time zones	$4
Map distortion	$4
Map direction and distance	$4

Map reading. Instructo Products Co.
Maps and globes $3.95.
Shows equator, tropics, poles longitudes, latitudes, hemispheres. 5 overlays. 4-12.
Topography $3.95.
Explains basic land and water formations. 4 overlays. 3-9.
Elevation $2.95.
Develops an understanding of elevation. 2 overlays. 3-9.

Tapes

What is weather? Imperial Productions, Inc. 15 min. (Discovery through science series) w/teacher's guide. $3.75.
Answers question "What is Weather?" As pupils "hear" the weather and understand its true meaning in their lives.

Records

Weather songs. Educational Record Sales. 1-12 in. 33 1/3 rpm. $3.98.
Includes songs about cloud types, cold and warm fronts, high and low pressure, air masses, storms, forms of precipitation, the atmosphere, causes of winds, humidity, formation of snow, lightning, and climate.

DESERT COMMUNITIES

Stating the Problem

- Why are some places or areas in the world called deserts?
- How do people live in desert areas?

Understandings To Be Developed (Geography)

1. There are several large deserts in the world.
2. Climatic conditions create deserts.
3. Desert areas have less than 10 inches of rainfall a year.
4. Most of the major desert areas of the world are in the middle latitudes.
5. Desert areas are hot during the day and very cool at night.
6. Most desert areas have a seasonal climate. They have warmer and cooler seasons but very little rain or snowfall.
7. The few plants that grow in the desert areas are rough, widely spaced, and limited in variety.
8. Widely spaced oases or places where underground water comes to the surface sustain vegetation.

Information Needed (To Develop Understandings)

1. Why are some areas called deserts?
2. Where are the large desert areas of the world?
3. Why do desert areas have little rainfall?
4. Why are desert nights cool?
5. What is an oasis?
6. Why is desert vegetation limited mainly to oases areas?
7. What are some of the plants that grow in desert areas?

Learning Activities (Geography)

1. Review dictionary usage and have children phrase in their own words and discuss the meaning of "desert."

2. Elicit from children personal experiences related to deserts (i.e. trips, movies, TV shows) and discuss or list characteristics of physical aspects of deserts noted. (May use Walt Disney's film or filmstrip "The Living Desert" for background in animal and plant life.)

3. Locate on a relief map, color keyed map, climate map, other available maps the major desert areas of the world. Note any physical features (mountain ranges, bodies of water) near each region.

4. Using published maps as guides, have children color and label major desert areas on an outline map for their notebook. Also label chalkboard map and globe. Discuss appropriate color choice for indicating desert areas.

5. Use classroom globes (both relief and geopolitical) to locate desert areas with relation to latitude and climatic zones.

6. On prepared outline transparency, have children use overhead projector to label and locate desert areas.

7. Examine rainfall maps of the world and compare total rainfall in their own community. Manipulate both two-and three-dimensional aids to clarify meaning and amounts of precipitation (yardstick, ruler, plastic containers, etc.).

8. Abler students could chart on either line graphs or bar graphs amounts of rainfall in each community.

9. Collect and examine types of soil (sandy, clay, etc.) and compare the result of watering on each.

10. View such filmstrips as "Desert" (SVE435-8) for discussion of what makes a desert.

11. Build a classroom desert terrarium. Select miniature cactus and thick leaved plants. Do not cover jar to retain moisture (desert conditions). Place a nondesert plant in the terrarium to observe its failure to survive under these conditions.

12. Begin a cactus collection and discuss reasons why some plants manage to live on the desert.

13. Plant two seedlings near the side glass in an aquarium with a water source (unpainted small flower pot with drainage corked). Keep pot partly full of water. The roots wil grow towards water source (to illustrate how plants reach for water). Introduce and

discuss meaning of oasis.

14. Collect magazine pictures (Use *Life* magazine special - April 5, 1954 reprints 20¢) of the desert and its life, and view accompanying filmstrip from *Life*. (Teacher will need to explain captions).

15. To illustrate the effect of wind on sand, make your own sand dune by using a hairdryer and an indoor sandbox (a carton of sand will suffice).

16. Using above equipment to illustrate effect of mountain blocking moisture, place an obstruction between wind source and desert floor. Using fine spray or atomizer to simulate rainfall, discuss which side of the obstruction receives moisture and why. Return to relief map and have children explain location and effect of mountain ranges in desert areas.

17. Have children learn to read and record temperature variations with a thermometer at morning, noon, and afternoon (both indoor and outdoor).

18. To demonstrate absorption of heat by sand, place a sand box under a heat lamp with a thermometer at bottom of sand. Record temperature after using heat lamp. Later note temperature of sand when source of heat is eliminated. How is this like day and night in the desert?

19. Abler children can research such topics as life of a prairie dog, horned toad, lizard, etc., and report on where and how these animals live. (Example: Why do prairie dogs tunnel under desert surface?) Books such as *The True Book of Deserts* by Elsa Posell, (Childrens Press) will be helpful.

20. Draw a class mural of desert plants and animal life. Books such as *The Desert* (*Life* publication) may be used.

21. Create a desert atmosphere by listening to such educational tapes as "Let's Find Out About Life On the Desert" (No. SG415 - Imperial Productions - $3.75) or "Sounds of the American Southwest" (No. 6122 - Folkways - $5.79.)

22. View and discuss "Why Is Night Cooler Than Day?" (Jam Handy Organization, "First Experiments About Weather," $5.75) or other filmstrips.

Understandings To Be Developed (Social Organization)

1. Desert dwellers live in family groups in various types of communities.

2. Many desert people are nomadic.

3. Some desert people live in small communities (Sahara oases) and

some live in larger communities (city of Yuma).

4. Large family groups (grandfathers, uncles, sons, cousins, fathers) all live together in some desert areas (the extended family pattern).

5. In more developed, permanent desert communities (the oases, towns, cities) there are fewer extended families.

6. Family responsibilities among desert dwellers are similar, though local mores and folkways differ.

Information Needed (To Develop Understandings)

1. Who are the people inhabiting the major desert areas?

2. What kinds of family groups are found in each desert area?

3. Why do some desert people live in large family groups?

4. Why must nomads move from place to place?

5. Why would there be differences in family life between Saharan nomads and people in more developed desert communities?

6. What are the family responsibilities of parents and children among: a) nomads b) oasis people c) Navajos d) other people of the desert?

Learning Activities (Social Organization)

1. Introduce use of encyclopedia and its index system (most encyclopedias have accompanying filmstrips to explain their use). List key words which may be used to locate or refer to this unit. Center attention on maps and photographs. Locate information on several topics to illustrate research techniques. Abler students might use *Compton's Jr. Encyclopedia*, *World Book* or *New Book of Knowledge*. *The Golden Encyclopedia* may be helpful for average students.

2. Go to school library and through the use of card catalog and vertical file, collect as many books, pamphlets, and pictures as possible on the topic.

3. Help class define the three or four major topics under consideration (food, clothing, homes, language, religion) of desert people. Depending on ability and interest, organize class into committees to research these topics and to report to the class.

4. Have children bring in old sheets and dress themselves as nomads (wear sandals or beach shoes). Dramatize nomadic life emphasizing

family organization. Listen to such tapes as "Among Bedouin Arabs" (British Broadcasting Corp., England - $3.75).

5. Role play some situations in which grandfathers, uncles, cousins, etc., are intrinsically involved in daily life (i.e. settling an argument or in preparation of a meal). Compare with childrens' daily life.

6. Build models of tent homes and oases villages. Mix mud, straw, and water to simulate adobe.

7. Compile a bulletin board display of pictures of people in various social roles in the desert (farmers, women, leaders). Pair them with photographs of people in your community. Use such study prints as "Children of Africa" (SP-131 SVE Series "Children Around the World" - SSP-600)

8. Research supplementary books for samples of written language (Arabic) and try to pronounce them.

9. Listen to music of desert people. Use "Music of South Arabia" Folkways No. 4421, or "Arabic and Druse Music" Folkways No. 4480.

10. Bring in newspaper pictures and articles related to desert areas in current events.

11. Write to travel bureaus of countries involved for additional information. Class may formulate questions about children of the desert which they want answered in the replies.

12. Able students may report on aspects of the Moslem religion, Navajo worship patterns and the various religions found among desert people of the U. S.

13. Tape recordings can be exchanged with other lands (in English or in native languages) through the services of World Tape Pals, Inc., P. O. Box 9211, Dallas 15, Texas.

14. View such films as "Arabian Children" (Encyclopaedia Britannica Films - rental, $5 in color). Discuss.

15. Using pictures for reference, make stick puppets of Navajo people showing varieties of dress.

16. Build a hogan of sticks and mud to use with puppets in dramatizing the daily life of Navajo children. Compare this with the life of the Sahara nomads and with oasis living.

17. Arrange a collection of Navajo cultural artifacts (jewelry, rugs, etc.).

18. Use Continental Press Duplicator series "Children of Many Lands" for picture depicting desert children. Individuals may color this and use it as a cover for special report booklet.

19. Discuss how an environment of an area may influence people's use of leisure time. (For example, games and dances utilizing items found in nature - The Eagle dance or Arabian hora). Use Folkcraft record No. 1127 Horra Arabi.

20. Discuss such filmstrips as Eyegage Filmstrip "Ahmed and Adah of the Desert" (#47H of the series #47 - Children Near & Far - $5).

21. Some children may have had experience with shish-kabob and pilaf or other foods of desert people. Class might research other foods.

22. If class is interested in correspondence with Navajo children on a reservation, they may write to the Chinle Boarding School, Chinle, Ariz. for pen pals.

23. To exemplify folk ways and dress, display photographs and discuss articles in *National Geographic* "Saudi Arabia" (Jan., 1960), "Land By Jordan" (Dec., 1947), "Oasis Hopping in the Sahara" (Feb., 1949), or "Desert Sheikdom - Arabic Pirate Coast" (July, 1956).

Understandings To Be Developed (Economic Organization)

1. People in desert communities depend on each other and on other communities for providing goods and services (ex., the interdependence between nomads and oasis people).

2. Providing for basic needs in a highly developed desert community necessitates a complex system of exchange (i.e., economic structure).

3. Agriculture is an important economic base of desert life.

    - Nomadic people raise animals for meat, hide, and dairy products.

    - Nomads move frequently to find forage for their flocks.

    - Oasis people are farmers who raise date palms, cereal crops, fruits, and vegetables.

4. The discovery of oil has done much to change life in parts of the deserts.

5. Irrigation of desert soils can greatly change an area and its productivity.

6. Some rivers supply large desert areas with water (the Nile, Colorado, Gila).

Information Needed (To Develop Understandings)

1. What are the basic needs of desert people?

2. How and why are nomadic and oasis poeple dependent on each other?

3. How are desert tribes organized to meet the needs of the individual and the group (i.e. the division of labor)?

4. What animals live and are raised on the desert?

5. Why is it possible to raise some animals on a desert?

6. Why is it possible to raise crops in oasis areas?

7. Why are few large industries and manufacturing plants located in deserts?

8. Which desert lands are valuable and why?

9. Why are only a few desert areas irrigated?

Learning Activities (Economic Organization)

1. Have children list goods and services needed in their community. Contrast these with the necessities children suggest are needed by desert people. Suggest sources desert people may use for food and services.

2. Role play a situation in which a business arrangement is made between a salesman and a housewife. Compare with one made between a nomad and an oasis person. Discuss different forms of exchange (bartering and money) and types of goods involved.

3. Make a list and classification of parents' occupations and equate each job to a similar position in the economy of desert areas.

4. Discuss the meaning and purpose of irrigation. Illustrate with local examples (lawn sprinklers, dams, etc.).

5. Using a closeup picture of a camel, notice its broad hoofs, double eyelid, heavy coat. How is this animal specially suited to desert life? How is the camel used on the desert (for clothing, food, protection)? Draw pictures illustrating uses of the camel. View Walt Disney's film "The Camel." WX-530 (Association Film Corporation - $3 rental) or other appropriate films.

6. Make a mural of an oasis village showing location and types of homes, gardens, trees, and business activities.

7. Write to the American Institute of Petroleum, Times Bldg., New York

City, for conservation and oil production charts.

8. Research the uses and illustrate the importance of date palms in the economics of desert lands. Discuss similarities of coconut and date palm. How do dates we buy at the grocery store look? Examine both fresh and dried dates and let children sample them. Discuss soil and climate conditions necessary to growing dates. Relate to agricultural activities of oases.

9. Free loan films such as "New Day in the Middle East" (Sterling Movies USA-27 minutes), may require teacher explanation in parts but will aid in understanding of the importance of industry to the Middle East.

10. Able students may chart products made from oil of the desert lands, especially gasoline. Others may find magazine pictures of inventions depending on gasoline which have changed our lives (cars, airplanes, etc.). An oil refinery may be added to your sand table display.

11. View films similar to: "Arts and Crafts of the South West Indians," Part I, (Santa Fe Film Bureau - free color film) and relate the importance of artwork to the economics of an era.

12. Through an outline or drawing, the children can trace the path of oil from beneath the desert soil to the tanker, including the use of pipeline and the refinery. Children may write to the Gulf Oil Co. for additional information on oil production.

13. As a culminating activity, view film "Arabian Bazaar" (Encyclopaedia Britannica Film - rental $5). Then plan and conduct a desert bazaar, decorating the room and using simple costumes). Attempt to imitate the sound and excitement of a bazaar with total class involvement.

Understandings To Be Developed (Political Organization)

1. The people of the undeveloped desert areas (the Saharans, the Navajo) are usually organized in tribal groups.

2. The leaders of a Saharan tribe are called sheiks and inherit their positions.

3. Tribal councils serve as the local government of the Navajo people.

4. People in developed desert areas have more advanced forms of government and live in towns, villages, and cities (Yuma, Arizona).

5. In these advanced desert communities local officials are elected.

6. Local government serves to coordinate or direct the actions of those within the community.

7. A democratic government is ruled by the majority, either directly or indirectly through a system of representation usually involving free elections.

Information Needed (To Develop Understandings)

1. How are the people of undeveloped desert areas governed?

2. How are the people of developed desert areas governed?

3. Who is the leader in a Saharan tribe and how does he get his position?

4. How are the Navajo governed?

5. What differences exist between the government of the Navajo and that of the other poeple of the Southwest desert area (Yuma, Arizona)?

6. Why is local government needed?

7. Why is the local government in the United States describes ad being democratic?

Learning Activities (Political Organization)

1. As an introduction to the purpose and meaning of the term government, enumerate classroom responsibilities (necessary tasks) for room maintenance. Discuss need for completion of such tasks and possible methods or structure to meet these needs (i.e. election of class officers, rotating helpers, etc.). Review nominating and voting procedures.

2. Discover through research the types of governments found in desert regions. Compare the organization of a sheikdom tribal council and democratic local government. Adapt these forms of government to management of classroom. (i.e. select a "Sheik Ali Ben (*name of child*") and advisors or a chief and a council).

3. Use dictionary and in childs own words record definition of terms in Social Studies Notebook (i.e. government, democratic, sheik, etc.)

4. Display such visuals as Denoyer-Geppert Bill of Rights Chart (DA4) and Our Obligations to Our Country (D12) (both $6.50) and have class discuss and list examples of application in daily life.

5. View such films as "Indians on Parade" (New Mexico Department of Development 16mm sound). Discuss the intertribal organization.

6. Individual book reports could be made contrasting the lives of modern Navajo boys using the book *Dancing Cloud* (Mary Buff - Viking Press) with an Arab boy whose father is a Bedouin sheik (*Achmed: Boy of the Niger* - Putnam). Class could relate importance of government to the life of each boy.

7. Have children draw individual family trees listing grandparents, aunts, uncles, and cousins, etc. Note geographical location when possible of living members to illustrate both heredity pattern and closeness of ties. (How is this different from extended family pattern? To what extent does heredity determine political power?)

8. Using a hypothetical situation in which a decision must be made (i.e., How should we welcome a visitor to our community?) Role play each form of government with the particular folkways and mores being illustrated.

9. View and discuss such filmstrips as "Saudi Arabia" (Eye Gate - color filmstrip - $5).

10. Write to Indian Rights Association for its quarterly current events magazine.

11. Based on previous understandings of socioeconomic needs of each desert community, children may list appropriate laws and rules observed in each area. For example, each tribal council member has one vote or in the Sahara two nomads claiming ownership of the same camel must abide by the sheik's decision.

Evaluation

I. Pupil Self-Evaluation form may be used in this unit and in the regional studies to follow.

How I Work and How I Learn

	I do this well	I am improving	I need to do better
I know how to find books about this region (i.e., discuss mountains, etc.).			
I find and bring in materials to help the class (pictures, newspaper clippings, postcards, records, realia).			

	I do this well	I am improving	I need to do better
I take part in committee work and class discussions.			
I listen to and learn from the work of others.			
My models, drawings, charts are neat and accurate.			
I check my information to be sure it is correct and can show where I found it.			
I share my ideas for other projects we might do in this unit.			

II. Teacher Evaluation of pupil's participation and progress.

Subjective Technique through observation and record keeping. To be used in this unit and in units to follow (suggested items may be altered according to class needs and teacher preference).

Childs name	Outstanding						Satisfactory						Needs Improvement					
	Deserts	North. Forest	Trop. Rainforest	Mountains	Grasslands		Deserts	North. Forest	Trop. Rainforest	Mountains	Grasslands		Deserts	North. Forest	Trop. Rainforest	Mountains	Grasslands	
1. Showed interest in his work																		
2. Contributed often to class discussion																		

Childs name	Outstanding						Satisfactory						Needs Improvement					
	Deserts	North. Forest	Trop. Rainforest	Mountains	Grasslands		Deserts	North. Forest	Trop. Rainforest	Mountains	Grasslands		Deserts	North. Forest	Trop. Rainforest	Mountains	Grasslands	
3. Used reference tools to locate information																		
4. Can organize information for himself and others																		
5. Can interpret pictures, charts, graphs, tables, etc.																		
6. Can assume his share of responsibility in committee work																		
7. Can apply problem solving method in forming generalizations																		

III. Discussion Questions for review:

- What is a desert and where are the major desert areas?
- What animals and plants survive in the desert and why?
- How are desert nomads different from oasis people? (Include homes, clothing, food, occupations, etc,).
- How do people in more developed areas of the desert (Yuma) differ from the above groups?
- In what ways are the Navajos like or different from the desert dwellers of more developed areas?

. What ways have we found which show that desert people need each other?

. How and why have some desert areas changed in recent years?

. What types of government are found among desert dwellers and how are they alike and different?

IV. Other Evaluative Techniques

. Creation of multiple choice, short answer and matching tests (mastery of pertinent facts).

. Suggested essay questions (to evaluate broad understandings).

- Why must desert nomads occasionally visit the oasis? What do they have to sell? What must they buy?

- Why is the date palm valuable?

- In what ways are all deserts alike?

. Individualized progress interview (based on pupil self-evaluation and teacher form).

. Using opaque projector, display a desert scene. Have children write a paragraph based on observances of picture and knowledge previously obtained.

V. Cooperative Evaluation

. People in hot, dry regions of the world live in a variety of ways.

. What are the similarities and differences we have found among desert dwellers of the world?

. What overall areas or aspects of our work need improvement?

. What activities did we enjoy most, least and why?

. Devise a summary chart similar to one on the next page and cooperatively record only pertinent ideas. Classroom and individual notebook copies could be made.

Life in the Desert

	Sahara		Yuma, Ariz.	Navajo
	Nomad	Oases People		
Land Plants and Animals				
Homes				
Clothing and Food				
Occupations				
Government and Family Life				

Teachers' References

Books

Carter, G. F. Man and the land. Holt, Rinehart and Winston. 1964. $9.95.

Periodicals

National Geographic Magazine. National Geographic Society. $8 yr.

Materials for Children

Books

Ault, Phil. This is the desert. Dodd. 1959. $2.18. 4-7.
Describes desert plants, animals. Includes an account of Indians, prospectors, ghost towns, and historic events. Explores possibilities for the future of a region which covers one-sixth of the United States.

Bahar, Hushang. Getting to know Iran and Iraq. Coward. 1963. $2.75. 2-6.
Describes modern Iran and Iraq. Includes history, geography, climate, the people and their customs. Points out the struggle these countries are having to progress.

Bleeker, Sonia. The Navajo: herders, weavers, and silversmiths. Morrow. 1958. $2.95. 4-7. (Morrow junior books)
Describes the life of the modern Navajo Indians on their reservation in the Southwest. Includes some of their history and customs.

____The Tuareg: nomads and warriors of the Sahara. Morrow. 1964. $1.98. 4-7.
Describes the nomads living in the Central part of the Sahara Desert in Africa. Includes history, costumes, social customs.

Buff, Mary. Dancing Cloud; the Navajo boy. Viking. 1958. $3. 2-4.
Describes the everyday life of a modern Navajo Indian boy.

____Elf Owl. Viking. 1958. $2.75. 2-4.
Poetic prose and sepia drawings are used to describe the life around a water hole at the foot of a giant cactus.

Clark, A. N. The desert people. Viking. 1962. $3.04. 2-4.
Describes the homes, customs, food, and work of men, women, and children of Papago Village.

____Tia Maria's garden. Viking. 1963. $3.07. K-3.
The story of a boy who goes for a walk on the desert and pays careful attention to what he sees there.

Ellis, H. B. The Arabs' World. 1958. $2.35. 7-9.
A history of the Arabs. Includes the time when Arab Empire stretched from the Straits of Gibralter to India. Describes the empire at its height. Includes some description of Arab world today. For very able student and teacher.

Epstein, Sam. All about the desert. Random. 1957. $2.37. 4-6. (All about books)
Describes major deserts found on each continent. Shows how plant, animal, and human life vary in each.

Fenton, C. L. & Carswell, Evelyn. Wild folk in the desert. Day. 1958. $3.50. 4-7.
Describes plants and animals that inhabit the five great deserts of North America.

Fitch, F. M. Allah, the God of Islam. Moslem life and worship. Lothrop. 1950. $2.01. 4-7.
Traces Mohammedanism from its beginnings to present. Includes its contributions.

Gidal, Sonia. My village in Morocco. Pantheon. 1964. $3.69. 4-6.
Describes life in a village between the Sahara Desert and the Atlas Mountains.

____Sons of the desert. Pantheon. 1960. $3.69. 4-6.
Describes the life of the desert tribesmen living near the village of Beersheba in Jordan.

Goetz, Delia. Deserts. Morrow. 1956. $2.94. 4-7. (Morrow junior books)
Describes desert life and emphasizes the problems it faces.

Hoffman, Gail. The land and people of Israel. Lippincott. 1963. 1960. $2.98. 4-7.
Introduction of the climate, geography, customs, industry, and people.

Holisher, Desider. Growing up in Israel. Viking. 1963. $3.50. 4-6.
Presents life in Israel by presenting the daily life of a 10-year-old Israeli and her brother. A survey of the history of the country, its industry and agriculture and its hopes for the future.

Huntington, H. E. Let's go to the desert. Doubleday. 1949. $2.35. 1-3.
Simple presentation of information about plants and animals of the desert. Many fine photographs.

Klots, A. B. The community of living things in the desert. Creative Educational Society. 1960. $4.95. (Community of living things vol. 5) 2-7.
Illustrated with many photographs, this gives a survey of deserts and the life on them. Includes causes of deserts, their life conditions, and the interrelation of plants and animals.

Jeanes, Charlotte. Desert beauty; the story of cacti. Follett. 1962. $2.49. (The Nature-adventure series) 4-7.
Description of cacti and of their adaptability to desert conditions. Includes their usefulness to man. Color photographs.

Joy, Charles. Desert caravans: the challenge of the changing Sahara. Coward. 1960. $2.18. 4-8.
A survey of the desert, its flora and fauna, its people and its history. Presents a summary of present problems and forecasts the future development. For able students and teacher use.

____ *Getting to know the Sahara.* Coward. 1963. 4-7.
Using the geographic approach, this book shows the influence of desert on lives and customs of people who dwell there.

Knight, D. C. The first book of deserts. Watts. 1964. $1.98. 4-7.
Discusses characteristics of deserts generally. Locate some of the world's deserts and describes plant and animal life. Includes uses man has made of deserts.

Leapold, A. S. The desert, by A. Starker Leapold and the editors of *Life*. Time. 1962. $4.45. 7-9. (*Life* nature library)
Beautifully illustrated account of the desert areas of the earth. Describes the unique forms of life that deserts support and points out the constant problem of water supply.

Life (Periodical). The world's great religions. Golden Press. 1958. 4-8. (A Deluxe golden book)
Presents the history, beliefs, and customs of Hinduism, Buddhism, Islam, Judaism, Christianity, and Chinese philosophies. Many color illustrations. (*Life* special edition for young readers)

Millen, Nina. Childrens games from many lands. Friendship Press. 1943. $2.21. 3-6.
A collection of 260 games from 55 countries. Includes instructions for playing.

Munch, T. W. What is heat? Benefic. 1960. $1.80. 2-4. (What is it series)
Discusses the natural and artificial sources of heat; shows

measurement techniques, and points out its importance to man.

Ogg, Oscar. The twenty-six letters. Crowell. 1961. $3.69. 4-7.
Traces the development of our alphabet through its phases to the present day.

Perkins, C. M. I saw you from afar. Atheneum. 1965. $2.18. 4-7.
An American couple visits the Bushmen of the Kalahari Desert. Presents the daily life of these primitive people of southern Africa.

Pond, Alonzo. Deserts; silent lands of the world. Norton. 1965. $3.48. 4-7.
A study of desert life. Describes climate, plant, and animal life and shows how man has adapted to desert regions. Points out the hazards of desert life and indicates the possibilities for future use as population expands. For able student and teacher use.

Posell, Elsa. True books of deserts. Childrens Press. $1.88. K-3.

Riwkin-Brick, Anna. Eli lives in Israel. Macmillan. 1964. $2.98. K-3.
Presents a story, with pictures, of the life of a boy who lives on a Kibbutz (a communal farm) in Israel.

Russcol, Margalit. Achmed, boy of the Negev. Putnam. 1965. $2.98. 4-6.
A photographic essay presentation of the daily life of an Arab boy whose father is sheik of a nomadic Bedouin tribe. It shows the boy doing daily chores, tending camels, fetching water from the well, and learning to trade at the market.

Schweitzer, B. B. Amigo. Macmillan. 1963. $4.27. 2-4.
Francisco lives in desert country. His greatest desire is to have a dog of his own but his family cannot afford to feed a real dog. He tries patiently to tame a prairie dog.

Shannon, Terry. Desert dwellers. Whitman. 1958. $2.75. 3-5.
Describes plants and animals that live in desert regions.

Wakeman, N. H. Southwest desert wonderland. Dodd. 1965. $2.98. 4-7.
Photographs and material in this book gathered by a biology professor. Describes southwest desert country and its natural inhabitants.

Warren, Ruth. The first book of the Arab world. Watts. 1963. $1.98. 4-7.
Describes the Arab world, its daily life, cultural heritage, customs of the people who comprise it.

Weingarten, Violet. Nile, lifeline of Egypt. Garrard. 1964. $2.19. 4-6.
The story of the Nile River and the great civilizations that developed along its banks.

Films

Arabian bazaar. Encyclopaedia Britannica Films. 10 min. Michigan State University. Audiovisual center. A-3 South Campus. East Lansing, Mich. Rental: $4.

Presents the flavor and excitement of an Arabian bazaar as the focal point of manufacturing, trade, and social life.

Arabian children. Encyclopaedia Britannica Films. 16 min. Purchase: b&w $90, color $180; Rental: b&w $4.50, color $6.50.

Shows how a farm family in Saahab, Jordan lives. Emphasis on experiences of the children.

Arts and crafts of the southwest Indians. Santa Fe Film Bureau. Santa Fe General Office Building. Amarillo, Texas 79101. 22 min. Part I. Free.

Presents the nomadic Navajos and ways they produce turquoise and silver jewelry and rugs.

Boy of the Navajos. Coronet. 11 min. Purchase: b&w $60, color $120.

Presents the story of a present-day Navajo boy as he herds sheep in the Arizona desert, spends evenings with his family in their hogan, and goes to the trading post to sell his drawings of the Navajo.

The camel. Walt Disney. 8 min. Association Films. Rental: color $3.

Jiminy Cricket presents the biography of a camel, the "ship of the desert." Tells about why he has his hump, his importance in history and his peculiar temperament.

The desert community. Encyclopaedia Britannica Films. 12 min. Purchase: b&w $60, color $120; Rental: b&w $3.50, color $5.

Shows how a ground squirrel adapts to the extremes of temperature and dryness in the desert.

Indian boy of the southwest. Film Associates. 15 min. Purchase: b&w $85, color $160; Rental: $7.50.

Toboya is a Hopi Indian boy who lives on a high mesa in the southwestern desert of the United States. Film shows how Toboya's family and the other families make a living. Viewers visit his school and the trading post near the mesa.

Life in an Oasis (North Africa). Coronet. 11 min. Purchase: b&w $60, color $120.

Shows the relationship of an oasis to the daily life. Includes description of irrigation farming, houses made of mud bricks, the fight against wind and sand. Contrasts natural oases to man-made oases where modern technology is used to locate water, drill wells, and prepare land for planting.

Life in hot, dry lands. (California) Coronet. 11 min. Purchase: b&w $60, color $120.

Tells about plant, animal, and human life on the desert. Shows desert areas of the world and tells why they are barren wastelands.

Life in desert. Encyclopaedia Britannica Films. 11 min. Purchase: b&w $60, color $120; Rental: b&w $3.50, color $5.

Describes the way a cactus absorbs and retains water. Presents animals of the desert, what they eat, how they protect themselves.

Life in the Nile Valley. Coronet. 11 min. Purchase: b&w $60, color $120.

Describes an agricultural society dependent on the Nile. Detailed description of an Egyptian farm family.

Life in the Sahara. Encyclopaedia Britannica. 15 min. Purchase: color $150; Rental: $6.50.

Presents important aspects of life in the Sahara Desert. Portrays typical vegetation and topography of the desert. Calls attention to water problems and points out the valuable contribution made by the camel.

Life of nomad people. (Desert dwellers) Coronet. 11 min. Purchase: b&w $60, color $120.

Shows life on the edge of the Sahara Desert. Includes the desert tribes as they follow the herds that provide food and clothing.

The living desert. Walt Disney Production. Buchan Pictures. 1 hr. 15 min. Rental: $22.50.

Man makes a desert. Film Associates. 10 1/2 min. Purchase: b&w $60, color $120; Rental: $5.

Shows the changes that occur when man upsets the balance between the plants and animals that inhabit an area. Grasslands in the southwestern United States were plowed and overgrazed. The grass gave way to desert plants; the life the grass supported disappeared. A desert was created. Today man is attempting to reclaim the land by reversing the changes he made.

Modern Egypt. McGraw-Hill. 18 min. Purchase: b&w $110, color $220.

Shows the difference between Egyptians who live in the city and the desert nomads who wander from oasis to oasis. Includes maps of important geographical regions. Takes you on a tour of Cairo and Alexandria and on visits to the agricultural and industrial areas.

The Navajo Indian. Coronet. 11 min. Purchase: color $120.

Presents the Navajo as he cards, dyes, weaves, and markets rugs. Shows him bargaining with the government representative. Also shows Navajo toiling in the fields and producing silver work.

New day in the Middle East. Sterling Educational Films. 6 East 39th St., New York 16, N. Y. 27 min. b&w free loan film.

Presents the economic, social and cultural changes now revolutionizing ways of living in the Arab countries.

Filmstrips

Amed and Adah of the desert land. Eye Gate. Color. $5. With tape $9.25. (Children near and far)

Presents desert children in their homes and surroundings.

The desert. Eye Gate. Programmed geography. Color. Set of six, $30. (The seven regions of the world)

Five filmstrips explaining the sun, the seasons, precipitation, storms, rivers, vegetation of desert areas. (One filmstrip is included which gives specific directions for teacher and student use.)

Deserts. Society for Visual Education. 31fr. Color. $4.75. (True book physical science)

Adapted from *True Book* text, explains what makes deserts. Points out that all deserts are not sandy.

Family of Jordan. Encyclopaedia Britannica Films. 47fr. Color. $6. (Families around the world)

Presents the everyday life of children on the Jordanian desert.

How a Navajo Indian family lives. Society for Visual Education. 50fr. Color. $6. (Primary social studies)

Shows the way Indian children live today.

Israel: the land and the people. Encyclopaedia Britannica Films. 49fr. Color. $6 ea. Set of six. $36.

This is Israel
Galilee
Haifa and the Valley of Jegreel
The Jordan Valley
Jerusalem and the Judean Hills
The Negev

The living desert. Disney. Encyclopaedia Britannica Films. 48 fr. Color. $6 ea. Set of six, $36.

The Great American Desert
Survival in the desert
Mammals of the desert
Reptiles of the desert
Small creatures of the desert
Plant life of the desert

Navajo children. Encyclopaedia Britannica Films. b&w $3. (Children of many lands)

The Negev. Encyclopaedia Britannica Films. 49 fr. Color. $6. (Israel: the land and the people)

Shows how efforts have been successful in changing desert areas into productive areas.

Oasis in Libya. Encyclopaedia Britannica Films. 46fr. Color. $6.
(Africa: Sahara to Capetown)
Presents oases farmers of Libya.

Plants and animals of the desert. Society for Visual Education. 39fr. Color. $5. (Plants and animals in their natural environment)

Why is night cooler than day? Jam Handy Organization. 29fr. Color. $5.95. (First experiments about weather)

Pictures

Children of Africa. Study Prints Society for Visual Education. Set of eight, $8.
Latifa of Morocco
Rabbi of Nigeria
Houssein of Egypt
School children of Ethiopia
Takuya, Boy of the Masai
Mawire and Gotora of Rhodesia
Kevi of the Kalahari Desert
Jan and Marta of South Africa

Transparencies

Life in the desert. Western Publishing Educational Services. Overhead transparencies with study guide. $4.75.

Charts

Our democracy series. Denoyer-Geppert. Charts. Elementary citizenship $6.50 ea. Set of twelve, $58.75.
D4 The Bill of Rights
D12 Our Obligation to Our Country

Tapes

Let's find out about life on the desert. Imperial Productions, Inc. 15 min. w/teachers guide, $3.75. (The Let's find out series)
Presents to the primary child a waterless environment as he travels to a desert to see first hand the desert plants and animals.

Records

Music of the Sioux and Navajo. Folkways Records FE4401. 12 in. 33 1/3 rpm. $5.95. (Ethnic folkways library)
Recorded in present day Sioux and Navajo villages.
Contents: The Sioux - Rabbit dance; Sun dance; Omaha dance;

Peyote cult dance; Love song; Honoring song
The Navajo - Riding song; Song of happiness; Spinning dance; Corn grinding song; Squaw dance; Silversmith's song; Night chant

Sounds of the American Southwest. Folkways - Scholastic records. 12 in. 33 1/3 rpm. $5.79.

Presents wild animals and natural sounds: rattlesnakes, owls, toads, thunderstorms, flash-floods, etc. in dry and rainy seasons.

NORTHERN FOREST (TAIGA) COMMUNITIES

Stating the Problem

- How have people in northern forest (taiga) regions adapted to their environment?

- What recent changes have taken place in some taiga regions and why?

Understandings To Be Developed (Geography)

1. Taiga lands are located only in the Northern Hemisphere at latitudes of 60-70 degrees.

2. In the Western Hemisphere the taiga stretches from Alaska across northern Canada to the Atlantic; and in the Eastern Hemisphere from northern Scandinavia across Russia and Siberia to the Pacific.

3. Taiga lands are generally low altitude plains which slope northward.

4. Rivers in the taiga lands flow northward toward the Arctic Ocean.

5. Climatic conditions create taiga lands.

6. In high northern latitudes, winters are long and cold, while summers are short and hot, and very little rain falls since most of the taiga is far from the ocean.

7. Due to little moisture and a short growing season only certain kinds of plants will grow in taiga lands (coniferous trees, muskeg grasses, and mosses).

8. The farther north one goes in the taiga, the smaller and more stunted the trees become, finally being superseded by muskeg and mosses.

Information Needed (To Develop Understandings)

1. What is the taiga and where are northern forest lands located?

2. Why do taiga lands have cold winters, hot summers, and a short growing season?

3. What is a continental climate?

4. What is meant by "growing season"?

5. What is a "low altitude plain"?

6. What kinds of vegetation are found in the taiga and why?

7. Why are the best forests (more and taller trees) located in the southern part of the taiga?

8. What is a coniferous tree?

9. Do deciduous trees grow in some taiga locations? Why? Where?

10. How much annual precipitation can most taiga areas expect?

Learning Activities (Geography)

1. Using a dictionary, define taiga and note its pronunciation. Include in Social Studies notebook.

2. As an introduction to forestlands, and to arouse interest or stimulate powers of observation, view such films as "Discovering the Forest" (Encyclopaedia Britannica Film - color - 11 min. No. 2481). Discuss the atmosphere of a forest. What might you see, hear, and smell there?

3. Using a geopolitical outline globe, have children tape or otherwise mark the area between 60° - 70° latitude (Northern & Southern Hemisphere). Note absence of large land masses in Southern Hemisphere.

4. Locate the northern forest lands on a relief map or a hydrographic relief globe (such as A. J. Nystrom's no. HX600 - $39.50). Note natural features of these areas (rivers, lakes) and discuss direction of river flow in the taiga (northward due to sloping elevation).

5. Using a climate map such as Rand-McNally's "Climates of the Earth" map (MC906C - $19.95) review relationship of climate and latitude. Relate to taiga climate and latitude and suggest possible vegetation.

6. View and discuss filmstrip series such as Eyegate 187E "Northern Forest Lands" (5 filmstrips - this series is programmed, complete with test).

7. Begin to collect pictures of vegetation in the taiga (*Life* magazine special "The Icebound Barrens of the Arctic Tundra" - June 7, 1954 - is helpful when clearly examined for taiga material rather than tundra).

8. Bring in sprigs of evergreen and pine cones. Give children experiences in identifying evergreen trees. Zim's *Trees* (Golden Nature Guide) and other books on trees help explain how evergreens are able to retain their leaves.

9. Write to the American Forest Products Industries, 1816 N. Street Northwest, Washington, D. C. for charts on tree growth. Trunks of discarded Christmas trees could be sliced and examined for annual rings. Children might suggest the trunk size of southern and northern taiga areas. (Small, stunted trees near 70° latitude)

10. Construct a forest terrarium using mosses, low plants. Cover tightly to maintain moisture. Compare with desert terrarium.

11. Take a field trip to a local arboretum and seek further information on trees and shrubs which may survive in taiga climate.

12. The growth of a tree and its uses are depicted in such educational tapes as "Let's Find Out About Trees" (No. SG419 - Imperial Productions, Inc. - $3.75.)

13. Teacher-made overhead transparencies of outline maps (or those commercially prepared such as Rand McNally - "Canada" RVS 9618 or "Soviet Union" RVS 9604) could be adapted to class use, choose appropriate color for taiga, mark regions with vegetation symbols, etc.

14. Abler students could use encyclopedias to find information on evergreen trees and present their findings to class. Then a comparison could be made between the characteristics of the date palm and the climate it needs and those of the evergreens.

15. Display photographs from *National Geographic* ("Alaska's Marine Highway," June 1965) and discuss interrelationship of geography and transportation; also helpful is "The Atlantic Region" (National Film Board of Canada - $6). Also useful is "Across Canada" by Mackenzee Track (National Geographic, Aug. 1955).

16. A field trip to the Museum of Natural History in New York City or a local natural history museum to see the special exhibits on forest communities could aid in understanding the geographic and natural features of the taiga.

17. With teacher narration, and careful selection of applicable frames, use series 128 "U.S.S.R." (Eyegate especially 128A "The Geographic Background.") This shows some of the geographic features of the taiga.

18. Other visuals depicting the natural balance of forest life which may be useful are the "The Changing Forest" (McGraw Hill - 17 min. film - rental $8.50) or "The Forest: A Stable Community" (Encyclopaedia Britannica No. 5072 filmstrip.)

Understandings To Be Developed (Social Organization)

1. People native to the taiga live in family groups, usually the extended family pattern (the Indians of Northern Canada, The Lapps of Northern Scandinavia, the natives of Siberia, and the few Eskimos who live partly in the taiga).

2. People who come to the taiga usually do so for economic reasons, leaving their families at home.

3. They usually plan to stay only a short time, then return south to their families at home.

4. The climatic conditions of the northern forest do not encourage permanent settlement.

5. A few modern industrial towns and cities have been built in the taiga.

6. Family life similar to that of most Americans is the pattern in such communities.

Information Needed (To Develop Understandings)

1. Why do people almost everywhere live in family groups?

2. Why would close family ties be important in the taiga?

3. Why would men hesitate to bring women and children to the taiga?

4. What is needed to make a community suitable for women and children?

5. Why would some families move to modern taiga communities?

6. Why have a few modern communities grown up in the taiga?

Learning Activities (Social Organization)

1. View and discuss filmstrip (such as Eyegate #112E "Children of Lapland") and note similarities in family life between Lapps and Americans.

2. Abler students may read and make book reports to compare family life in each taiga communities: *Alaska: The Land and the People* (Viking Press) or *Getting to Know Canada* by Regina Tor (1958) or *Lapland Drum* by Alice Lide and Margaret Johonsen (Abingdon Press 1955).

3. To illustrate the family pattern of *some* Eskimos in taiga communities view and discuss - "The Caribou Hunters" (National Film Board of Canada - $6).

4. To illustrate the relationship among physical environment, economic activity and social organization view and discuss such filmstrips as "Railway City" or "Timber City" from McGraw-Hill (093110 Set 2 - "In Western Canada" - $6.75 ea.) or the film "Ti Jean Goes Lumbering," (International Film Bureau, rental $8.50.)

5. An average reader might use *Elle Kari* by Anna Riwkin-Brick to depict the daily life of a girl in Lapland. Student might dress and role play the Lapp child and tell class about her family.

6. Listen to records such as "Folksongs of the Canadian Northwoods" (6821) or "Lappish Joik Songs" (#4007 - $3.25 - Folkways), to introduce both the work and rest songs of these taiga people.

7. Have children pretend they are building a home in the taiga. What could they use for materials? They may try building a log cabin or "kata" or "goatte." Discuss difficulties in construction and its influence on the development of permanent settlement. Suggest why roads are not plentiful in taiga lands.

8. To understand how the daily life of some taiga people is unalterably tied to hunting of reindeer herds, view such films as "Lapland" NX-515-color - Walt Disney - rental $10 per day (Association Films Inc. - 600 Grand Ave., Ridgefield, N. J.) Also refer to *National Geographic* (July, 1959) "Lapland Reindeer" or "North Finland Lapp" (Aug., 1954).

9. Arrange a display of fur trimmed articles and pelts (ermine, fox and rabbit skin, sable, beaver, bear skin).

10. If some fathers are hunters, they might prepare enough venison for the children to sample.

11. Discuss the use of leisure time and have children learn a typical dance. i.e. "Troika" (Folkcraft 1170). Steps may be simplified for third graders.

12. View and discuss "Pekka and His School," a film depicting a typical school day in the life of a Finnish child (free, Embassy of Finland).

13. Children might illustrate, in their own pictures, types of recreation in taiga land (skiing, fishing, snow shoeing, sleigh-riding). Which of these are also adaptable to meeting a family's daily needs?

14. Parents or relatives of Slavic or Scandinavian background could visit the class to tell about their land and speak and write their language. A copy of *Pravda*, the Russian newspaper might be examined to see Russian typography.

15. Lapp families move from summer fishing grounds to highland reindeer pastures. As an illustration of this and its influence on family life view and discuss such films as "Laplanders" (Encyclopaedia Britannica Film - rental b&w $3.50).

16. To depict the native costumes of children of taiga lands, have children color prepared dittos from Continental Press "Children of Many Lands" series or make stick puppets using these dittos as a reference source.

Understandings To Be Developed (Economic Organization)

1. The economic base of life for native peoples in the taiga lands of the eastern hemisphere is nomadic pastoralism (the Lapps).

2. Their reindeer provide food, clothing, and shelter.

3. They trade reindeer products with people of the south to obtain goods they cannot make for themselves.

4. Fishing in the rivers and lakes of the taiga provide a source of food.

5. The economic base of life for Canadian Indians is the fur animal.

6. Many Canadian Indians are fur trappers who trade their pelts for goods and money which provide food and clothing for their families.

7. The mining of minerals (iron ore, uranium, cobalt, gold) and lumbering are usually the economic bases for modern taiga communities.

8. Modern communities such as those in Siberia, Canada, and Alaska have been built to provide the necessities of life for people who come there to mine and to work in the lumber-related industries.

9. Railroads have been built to connect such communities with more southerly areas and the use of air transportation has increased.

Information Needed (To Develop Understandings)

1. Why is the reindeer an important animal to taiga people?

2. What do taiga people need from people of the south?

3. What use would people of the south have for reindeer products?

4. Why are many Canadian Indians fur trappers rather than farmers?

5. Why is the taiga rich in fur-bearing animals?

6. Why have the mining and lumbering industries developed extensively in the taiga in recent years?

7. Why do mining and lumbering companies want to build communities for families in the taiga?

8. What is meant by an "extractive" industry and what are some examples?

9. Where do taiga communities get their food?

10. Why is building (railroads, roads, houses) difficult in these northern lands?

11. Why are airplanes and helicopters more suitable for travel in the taiga than some other modes of transportation, (buses, cars)?

Learning Activities (Economic Organization)

1. As a result of seeing films, filmstrips and reading for previous social learnings, have children list the main occupations of the taiga. Why might these be logical jobs in the taiga (rather than farming)?

2. View and discuss a film such as "People of the Reindeer" (Encyclopaedia Britannica Film - 10 mm). The influence of economics on family life is shown in *Follow the Reindeer* by Sonia Gidal, (Pantheon Books 1959) or *Men, Moss, and Reindeer* by Erick Berry (Coward McCann 1959 - $2.93).

3. Arrange a display of the lumbering industry and its products. Send for picture set: "Lumbering" (from Ideal School Supply Co., Chicago).

4. To illustrate the importance of lumbering the class might view the filmstrip "Canada: A Regional Study" (series 87 Eyegate - use No. 87 E, F). The steps in lumbering are depicted in such films as "Process of Lumbering" (Encyclopaedia Britannica Film #2257 - color - 15 min.) or "Treasures of the Forest" (from National Film Board of Canada - 13 min.).

5. Children might list items in the classroom or school that are lumber derivatives (furniture, paper, etc.) and examine wood shavings, sawdust, and other forms of wood. Woodworking is explained

in "Made in Finland," a film from the Embassy of Finland (write: Press Section, 1900 Twenty Fourth St., Northwest, Washington, D. C. 2008 - order 6 mos. in advance).

6. Conservation of forest land could be discussed. "It's Tree Country" (13 min. - free film from American Forest Products Industries, Inc., 1816 N. Street, Northwest, Washington 6, D. C.) and free educational materials from the above address may promote consideration of the importance of conservation of forest lands. Dramatization may follow with play "Trouble in Tree Land" by Claire Berko (*Plays - The Drama Magazine for Young People*, May, 1964, p. 83).

7. Write for free map "Alaska" (from Alaska Airlines, 528 Union, Seattle, Wash. 98101).

8. Dramatize the development of natural resources and the lure of wealth by producing a simple play such as "Our 49th State" by Aileen Fisher (p. 83 - *Plays - The Drama Magazine for Young People*, Jan., 1964).

9. The development of natural resources and the settlement of areas in the taiga have depended on new modes of transportation. Class may consider this statement after seeing such filmstrips as "Transportation" (series 87, No. 87C in Canada: A Regional Study - $5) or "The Romance of Transportation" (International Film Board, Rental $6).

10. A portrayal of the life of fur trappers and the importance of fur bearing animals to the economy of the taiga is shown in such films as "Fur Trappers of the North" ($5 rental from Encyclopaedia Britannica Films). "The Age of Beaver" (National Film Board of Canada, Suite 819, 680 Fifth Ave., New York - Rental $6.50) is also available.

11. Children might prepare oral book reports on such books as *Animals of the North* by Charles P. May (Abelard, 1964 - $2.35) and make drawings of animals for bulletin board. The *Life Special* "Icebound Barrens of the Arctic Tundra" (June 7, 1954) has excellent pictures of animals of the north. Be selective for those of the *taiga* (rather than tundra). Also use *National Geographic* "Men, Moose and Mink" (August, 1947).

12. Draw a mural of the northern forest showing as many economic activities as possible (mining, lumbering, trapping, herding, etc.).

13. More information on the mining industry may be obtained by writing for the picture set: "Making Iron & Steel" (U.S. Steel - New York - color filmstrip, samples of raw materials). Both are from American Iron & Steel Institute, 150 East Forty-Second St., New York, N. Y. 10017.

14. Children may view and discuss filmstrips about Russian natural resources. Teacher should be selective in section of filmstrips shown such as those in series Eyegate #128 "U.S.S.R."- 128B 'Natural Resources & Industries' and 128C "People & Consumer Goods" to find those topics which apply to the taiga of Russia.

15. The impact of the gold rush on people of the taiga is depicted in such films as "Nahanni" (Contemporary Film Incorporated - NFBC 65 East South Water St., Chicago 60601 - rental $8.50) or "City of Gold" (McGraw Hill Test Film Dept., 330 West 42nd St., New York 10036 - rental $8.50.

16. A committee of children could role play members of a family moving to a new community. Each member should tell what he would want to find in the new area - (children: movies, playgrounds; women: theater, stores; men: sports opportunities). Follow up with discussion of reasons why and how some newly developed communities in the taiga are meeting these needs.

Understandings To Be Developed (Political Organization)

1. People native to the taiga are usually organized into tribal groups whose leaders inherit their positions.

2. The chief and a council of older members make and enforce rules for the common good.

3. The governments of Canadian and Alaskan communities are democratically organized and the local officials are elected.

4. Such communities usually have a legislative body sometimes called a city council which makes the laws or rules that people must follow for the common good.

5. Russian (Siberian) communities are governed by officials appointed by Moscow.

6. Rules and laws are made by the officials in Moscow and the people they appoint to administrative positions.

Information Needed (To Develop Understandings)

1. Why do groups from simple culture patterns tend to organize into tribal groups?

2. How are tribal leaders chosen?

3. What makes a government democratic?

4. Why must rules be made and followed?

5. What are some differences in governmental organization between a Siberian taiga community and one in Northern Canada?

Learning Activities (Political Organization)

1. As a social studies experiment, select an afternoon in which usual rules (i.e. walking in line, raising your hand, etc.) are not observed. After ample time to note the resultant confusion, discuss with class the need for rules in class and community.

2. Discover through research the types of government found in taiga regions and list or chart the names of leaders, responsibilities, method of election, or appointment. (i.e. chief, major, council leaders, etc.)

3. Adapt the forms of government in the taiga to classroom situation and management (i.e. teachor could role play an official in Moscow and appoint a child to complete daily tasks. Contrast this with class election of "mayor of the week."

4. Use dictionary and, in child's own words, record definition of political terms in Social Studies notebook (i.e. official, mayor, legislative, etc.).

5. View and discuss "Choosing a Leader" (National Film Board of Canada, Suite 819, 680 Fifth Avenue, New York, N. Y. 10019, rental $5) with special emphasis on the need for sharing responsibility.

6. Throughout committee work (with election of chairmen and duties of members clearly articulated by class and teacher) correlate types of problems met and solutions adopted. How is this similar to the methods used by chiefs or tribals councils or mayor and legislative bodies? How is it different from the appointment of officials by Moscow?

7. To illustrate lack of local control in Siberian taiga communities, have children locate Moscow in relation to Central Siberia and discuss the implication of distance in determining policy or meeting needs.

8. Divide the class into four or five Lapp-like family groups with a council of tribal elders and role play the preparation for a reindeer hunt. As a comparison activity have each child represent an individual family in a lodging community. Note and stress the more complex community organizational pattern necessary (i.e. development of roads, grocery stores, fire department, etc.).

Elicit reasons for this more complex development. Use *Follow the Reindeer* by Sonia and Tim Gidal (Pantheon - pp. 15-22) as a reference source.

9. Listen to the national anthems of Canada and Soviet Union, (Folkways/Scholastic Records Anthems, Vol. I - $4.25 - 906 Sylvan Ave., Englewood Cliffs, N. J. 07632). Children could also make flags of countries having taiga regions.

10. An able student could research other national symbols (i.e. the brown bear of Russia and the maple leaf on the Canadian flag).

Evaluation

I. Pupil Self-Evaluation - see suggested form in Desert unit.

II. Teacher Evaluation - see suggested form in Desert unit.

III. Discussion Questions for review

- What is the taiga and where are these areas located?
- Why is it necessary to have close family ties in the taiga? What things can the tribe do for the individual that he could not do as well alone?
- How is the reindeer important to taiga people?
- What are the natural resources of the taiga? To what extent are they being developed?
- What effect have modern technology and transportation had on the taiga?
- What aspects of the taiga encourage and/or discourage permanent settlement?
- What types of government are found in the taiga and how are they alike or different.

IV. Other Evaluative Techniques

- Creation of multiple choice, short answer, and matching tests (mastery of pertinent facts and skills).
- Have children devise challenge rounds and quiz games to summarize and review main understandings of unit.

. Suggested essay questions (to evaluate broad understandings).

- In what ways are all taiga lands alike?
- What do taiga people need from the south and how do people in the south use taiga products?
- Describe a typical day in the life of a Laplander, a lumberjack, and a Siberian mine worker.
- Why are taiga lands valuable?

V. Cooperative Evaluation

. What ways of living are found in the taiga? How are they similar or dissimilar?

. How have men used the taiga and what are the possibilities for future use?

. What activities did we enjoy the most? least? Why?

. Devise a summary chart similar to the one following and co-operatively record pertinent ideas. Classroom and individual notebook copies could be made.

Life in the Taiga

	Canadians		Lapps	Siberians
	Indians	Newcomers		
Land Plants and Animals				
Homes				
Clothing and Food				
Natural Resources				
Occupations				
Government and Family Life				

Berry, Erick. Land and people of Finland. Lippincott. 1959. $2.95. (Portraits of the nations series) 4-7.
Presents many interesting aspects of the country. The way it evolved from a country of nomads through Swedish and Russian domination to a sturdy democracy, its attitude toward education, sports, and the arts, the industry of the people, etc.

_____Men, moss and reindeer. Coward-McCann. 1953. $2.93. (Challenge books) 4-6.
Describes the way of life of the Lapps. Shows close interrelation of the people, the moss, and the reindeer.

Brentveld, Jim. Getting to know Alaska. Coward. 1958. $2.52. (The Getting to know books) 3-6.
Covers many aspects of Alaskan life - its location, its products and natural resources, and the many kinds of people living there.

Butler, Evelyn, & Dale, George. Alaska: the land and the people. Viking. 1957. 5-7.
An overview of the country and people of Alaska, presented by a husband and wife who have spent several years in education work for the Alaska Native Service. Shows how customs and ways of life are changing. Includes fishing, reindeer roundup, games and crafts, and the government.

Darby, Gene. What is a tree? Benefic Press. 1967. $1.40. (The What is it series) K-3.
Tells how a tree grows. Identifies some trees and includes some information on wood products.

Dudley, Ruth. Favorite trees of desert, mountain and plain. Funk. 1963. $2.65. 4-7.

Fiehle, Louise. The story of lumber. Scribner. 1962. $3.31. 2-5.
Tells about harvesting trees from deep in the forest - reaching them, cutting them, and carrying them to the mill.

Gidal, Sonia. Follow the reindeer. Pantheon. 1959. $2.18. 2-5.
Story of the reindeer and the Lapp people who live within the Arctic Circle. Describes a Lapp family as it follows the reindeer the year around.

Gidal, Sonia, & Gidal, Nachum. My village in Finland. Pantheon. 1966. $3.95. 4-6.
Presents modern rural life in a small village in Finland.

Guillot, Rene. Reindeer trail; a long journey from Lapland to Alaska. Macmillan. 1959. $2.67. K-3.
Grishka runs away from his tribe in Northern Siberia when his pet bear is chosen for the annual sacrifice.

Teachers' References

Books

Carter, George. Man and the land. Holt. 1964. $9.95.

Webster's geographical dictionary. Merriam. $5.70.

Periodicals

The National Geographic Magazine. National Geographic Society. $8 yr.

Maps and Globes

Climates of the earth. Rand McNally. 58" x 39". $19.95.
Shows six major types of climate. Illustrated with place identifications to show Fahrenheit temperature and rainfall.

Individual relief outline and outline activity maps for Eastern and Western Hemispheres. Rand McNally. $5 ea.
RVS - 9618 - "Canada"
RVS - 9604 - "Soviet Union"

Materials for Children

Books

Arsenyer, Vladimir. With Dersu the hunter; adventures in the taiga. (Adapted by Anne Terry White) Braziller. 1965. $3.29. (A Venture book) 7-9.
Dersu and the author go on an expedition into the mighty spruce forest of Siberia. Depicts vastness of the forest, the hardships of living there and the animal life.

Aulaire, Ingri d'. Children of the northlights. Viking. 1962. $3.77. 3-5.
The story of Lise and Lasse, two children of Lapland.

Hader, Berta. Reindeer trail; a long journey from Lapland to Alaska. Macmillan. 1959. $2.67. K-3.
Generous Laplanders bring their herds of reindeer all the way from Lapland to Alaska to help hungry Eskimos.

Hills, T. L. Canada. Fideler. 1965. $3.88. 3-6.
Presents the land, the people, the climate, transportation, and great cities.

Hutchins, R. E. This is a tree. Dodd. 1964. $3.23. 7-9.
Discusses life process of a tree. Includes information such as dating from tree rings, some famous trees and their uses. For very able student and teacher.

Jackson, W. A. Soviet Union. Fideler. $4.08. (Life in other lands) 4-7.
Presents geography and social life and customs of people of Russia. Includes history, government, sports, recreation, and education.

Lide, Alice, & Johansen, Margaret. Lapland Drum. Abingdon. 1955. 4-6.
Vivid description of life among the Lapps as they move from summer to winter pastures with their reindeer.

May, C. P. Animals of the far north. Abelard. 1964. $2.35. 4-7.
Explains relationship of man to animal life in far north: reindeer, musk ox, wolves, foxes, bear, whale, ptarmigan, salmon. Includes Canada and Alaska.

Milne, L. J. Because of a tree. Atheneum. 1963. $2.65. 4-6.
Describes eight types of trees. Includes their relationship of other plants and animal life around them.

Nazaroff, Alexander. The land and people of Russia. Rev. ed. Lippincott. 1966. $3.25. (Portrain of the nations series) 7-9.

Palazzo, Tony. Jan and the reindeer. Garrard. 1963. $2.07. K-3.
Presents the life of a typical Lapp boy as he follows the reindeer to summer pastures.

Riwkin-Brick, Anna. Elle Kari. Macmillan. 1959. $1.68. K-3.
Simple presentation of little girl of Lapland who lives in a house called a kata. Describes a summer in her life.

Snedigar, Robert. Life in the forest. Britannica Books. Meridith Press. 1962. $1.56. 2-5.
Explains the interdependence of wild life and man in the forest environment, the structure of the forest as a whole, and its plant and animal life.

Snyder, Louis. The first book of the Soviet Union. Watts. 1959. $1.98. 6-8.

Sterling, Dorothy. Mosses, ferns and mushrooms. Doubleday. 1955. $1.84. 7-9.

With teacher help, would be helpful to develop understanding of what moss is.

Watts, May. The Doubleday first guide to trees. Doubleday. 1964. $1.74. K-3.

Illustrates many trees in full color illustrations.

Zim, Herbert,& Martin, Alexander. Trees. Golden Press. 1956. $2.99. (Golden nature guide) 3-6.

Films

Alaska and its natural resources. Bureau of Mines. United States Department of the Interior. Motion Pictures, 4800 Forbes Ave., Pittsburgh, Pa. 15213. 26 min. Color. Free.

Describes the promise and challenge of Alaska through the eyes of a young Cheechako (tenderfoot) who seeks his future in the north.

The Atlantic region. National Film Board of Canada. 21 min. 35 sec. Purchase: b&w $90; Rental: b&w $6. (Available for rental from Contemporary Films Inc., 267 West 25th St., New York, N. Y. 10001)

Presents a study of the last coast region of Canada and the life and industry of its people.

The Caribou hunters. National Film Board of Canada. 17 min. 30 sec. Purchase: b&w $90, color $180; Rental: b&w $6, color $8.50. (Available for rental from Contemporary Films Inc., 267 West 25th St., New York, N. Y. 10001.)

Shows the Cree and Chippewa Indians of northern Manitoba and the nomadic life they lead as they roam the northern forest areas to hunt caribou. Shows the hunters moving with the herds and trapping the smaller animals of the forest and stream. Includes trading furs at the trading post, camp life as they move about, and the chores done by the women.

The changing forest. McGraw-Hill. 19 min. Purchase: color $210.

Shows the deciduous forest as an integrated community of living things, both plant and animal.

City of gold. McGraw-Hill. 23 min. Purchase: b&w $130.

Presents the story of the last major gold rush - the stampede of thousands of men into the Klondike in the late 1890's.

Discovering the forest. Encyclopaedia Britannica Films. 11 min. Purchase: b&w $60, color $120; Rental: b&w $3.50, color $5.

Without narration, this film is designed to encourage children to observe and ask questions. Takes children on a trip to the forest to discover its atmosphere, its sounds and the varied forms of life found there.

Fur trappers of the north. Encyclopaedia Britannica Films. 11 min. Purchase: b&w $60, color $120; Rental: b&w $3.50, color $5.

Portrays the rugged life of the fur trapper in the northern wilds. Follows through the trapping season and the marketing of pelts.

It's tree country. American Forest Products Industries, Inc., 1916 North St., Northwest, Washington 6, D.C. 13 min. Free.

Shows importance of conservation of forest lands.

Lapland. Walt Disney Productions. 28 min. Association Films. Rental: color $10.

Presents nomadic people that inhabit the frozen wastelands of Norway, Sweden, Finland, and Russia. Shows the way these people are dependent on reindeer herds for food and clothing.

Laplanders. Encyclopaedia Britannica Films. 9 min. Purchase: b&w $60; Rental: b&w $3.50.

Follows Lapp family from summer fishing grounds to highlands reindeer pastures. Shows dependence on reindeer for food, clothing, shelter, and transportation.

Lumber for homes. Encyclopaedia Britannica Films. 13 min. Purchase: b&w $60, color $120; Rental: b&w $3.50, color $5.

Tells about building homes. Also portrays our nation's resources from the soil. Opens with scenes in a Pacific Coast timberland and follows the stages of the logging operation. Finished lumber is used in building homes.

The lumberman - our changing way of life. Encyclopaedia Britannica Films. 15 min. Purchase: b&w $75, color $150; Rental: b&w $4, color $6.50.

Presents the lumber industry of the Pacific Northwest. Emphasizes the effect of modern machinery and transportation on the industry itself and on the people concerned.

Made in Finland. Embassy of Finland. Press Section. 1900 24th St., Northwest. Washington, D.C. 20008. 25 min. Color. Free. Borrower pays return postage.

Explains wood working industries of Finland which form the basis of the country's economy. Shows some scenery.

Nahanni. Contemporary Films, Inc., 267 West 25th St., New York, N. Y. 10001. 18 min. 23 sec. Purchase: color $180; Rental: color $8.50.

Presents the wilderness through which the Nahanni River flows and tells of the search for a lost gold mine. An aging prospector tries again and again to find the hidden gold. His route is through spectacular country - wild and awesome.

Pekka and his school. Embassy of Finland. Press Section. 1900 Twenty-fourth St., Northwest, Washington, D. C. 20008. 15 min. Free.

Tells the story of Pekka, a 10-year old Finnish boy. Shows the school he attends and takes him through a typical school day.

People of the reindeer. Encyclopaedia Britannica Films. 18 min. Purchase: b&w $90; Rental: $4.50.
Pictures land and life of the Lapps - as they follow reindeer herds.

Treasure of the forest. Coronet. 13 min. Purchase: b&w $75.
Presents the processing of timber from scientific forest management to finished wood products. Demonstrates the increasingly efficient use of wood in the growing lumber industry of Canada.

The Romance of transportation in Canada. International Film Board of Canada. 10 min. 48 sec. Purchase: b&w $60, color $115; Rental: $6. (Avaialble for rental from Contemporary Films Inc., 27 West 25th St., New York, N. Y. 10001.)
Presents successive stages in the development of transportation in Canada from the first footpaths, through canoes, barges, etc., to railway, automobile, and aircraft of today and tomorrow.

Filmstrips

Canada; a regional study. Eye Gate. Color. $5 ea. Set of nine, $39.

- Historic background
- Geographic background
- Transportation
- Trade and agriculture
- Lumbering
- Other industries
- The people in school and at play
- Cities of Canada
- Attractions for visitors

Children of Lapland. Eye Gate. Color. $5 ea. (Children of some North Atlantic Countries)

Finland. Eye Gate. Color. $5 ea. (Scandinavia: a regional study)
Shows the country, the people, way of life, social and economic structure.

The forest: a stable community. Encyclopaedia Britannica Films. 55fr. Color. $6. (Plant and animal relationships.)

Logging in Canadian forests. Encyclopaedia Britannica Films. 48fr. Color. $6 ea. (Canada: people at work)

Railway city. McGraw-Hill. 42fr. Color. $6.75. (Canadian Regional Geography Series. Set 2: In Western Canada)

The seven regions of the world. Programmed geography. Color. Set of five, $25.
The northern forest lands - five color filmstrips showing the dominant winter, the short summer, the frozen soil and the place of conifers and summer flowers.

Timber city. McGraw-Hill. 42fr. Color. $6.75. (Canadian regional geography series. Set 2: In Western Canada)

U.S.S.R. Eye Gate. Color. $5 ea. Set of nine, $39.
Presents the Russian people and their mode of living and working as it contrasts to our system of free enterprise.

- The geographic background
- Natural resources and industries
- The people and consumer goods
- Education and recreation
- Transportation and communication
- Art - architecture and religion
- Moscow
- Other important cities
- More important cities

A visit to the woods. Encyclopaedia Britannica Films. 33fr. Color. $6 ea. (Discovering life around us)
Shows the relationships between living things in a way to help children discover ecological concepts.

Records

Lappish joik songs from northern Norway. Folkways/Scholastic Records. 12 in. 33 1/3 rpm. $6.79.
Fifty-eight work and rest songs from communities of northern Norway.

Folksongs of the Canadian North Woods. Folkways/Scholastic Records. 10 in. 33 1/3 rpm. $4.15.
Introduces work and recreational songs of Canadian North Woods.

Pictures

Children of many lands. Continental Press Inc., Elizabethtown, Pa. 17022. Elementary set: $3.25.
Prepared dittos depicting dress of children around the world.

Tapes

Let's find out about trees. Imperial Productions, Inc. $3.75.
Presents the growth of a tree, how it grows, what it is used for, and how it can be protected

Periodicals

Plays: the Drama Magazine for Young People. Plays, Inc., 8 Arlington St., Boston 16, Mass. Published Oct. - May. $6 yearly.